REMARKS

STATUS OF THE CLAIMS

Claims 1-19 are pending in the application.

Claims 5, 11 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Martorana (U.S. Patent No. 6,876,326).

According to the foregoing, the claims are amended. Reconsideration of the pending claims is respectfully requested. No new matter has been added.

REJECTIONS

35 USC 112, SECOND PARAGRAPH, REJECTION

Claims 5, 11, and 17 are rejected under 35 USC 112, second paragraph, for indefiniteness. According to the foregoing, the claims are amended taking into consideration the Examiner's comments. Withdrawal of the indefiniteness rejection is respectfully requested.

35 USC 101 REJECTION

First, an outline of operation of the relied upon reference (hereinafter called Martorana) is described, based on the entire operational setup shown in Fig. 1 of Martorana. Martorana relates to a technology wherein a master radio 12 disposed at the center of Fig. 1 communicates with reference radios 14, 16, 18 and 20 located nearby the master radio 12, thereby to estimate the master radio 12's own position. Each of reference radios 14, 16, 18 and 20 is located at a known position, or having a GPS function to know its own position (Column 8, lines 43-52).

Martorana column 9, lines 8-12 discusses each reference radio must know its own position and convey this information to the master radio.

Further, the master radio 12 transmits a ranging signal to each reference radio 14, 16, 18, and 20, and by measuring a round-trip time for the signal to return from each reference radio, a range to each reference radio is determined.

The master radio 12 determines its own position with respect to the reference radios (Column 9, lines 6-8) by a trilateration technique based on (1) the range to each reference radio

measured by the master radio and (2) a position information of each reference radio received from each reference radio.

In reviewing the points of similarity between the claimed present invention and Martorana, the only similarity could be that with the claimed present invention a method of position determination by measuring a range between the object to be searched (e.g., automatic vending machine 400) and a measuring terminal (e.g., a mobile terminal with the GPS function 300) can be made by a round-trip time measurement. However, as the entire system configuration, the claimed present invention is clearly different from Martorana.

As discussed above, with Martorana, the master radio 12, who does not know its own position, acquires the information of positions from a plurality of other reference radios 14, 16, 18 and 20 to determine the master radio's own position by determining the range between itself and each reference radio, wherein the measurement is made by the master radio 12 itself.

On the contrary, nothing having the same function as that of the master radio 12 of Martorana exists in the present invention. Further, the function of each of the four (4) essential elements constituting the claimed present invention, namely, as shown in the present application FIG. 1, ***a request terminal (e.g., a non-GPS terminal)*** 100, ***one or more cooperating measuring terminals*** (GPS terminal) 300, ***an object to be searched*** (e.g., automatic vending machine) 400, and ***a service device (base station)*** 200 to provide calculation of a position of a search object that would be with respect to the request terminal, is different from the function of the master radio 12 of Martorana.

The independent claims are 1, 4, 5, 8, 10, 11, 14, 16, and 17.

Independent claims 1, 8, 14 are directed to the claimed present invention's cooperating "***measuring apparatus***" 300 that provides position related information for locating a "***service object***" 400.

Independent claims 5, 11, 17 are directed to the claimed present invention's "***request apparatus***" 100 that requests position information of "***the search object***" 400.

Independent claims 4, 10, 16 are directed to the claimed present invention's "***service device***" 200 that communicates with the cooperating "***measuring apparatus***" 300 to receive from the "***measuring apparatus***" 300 the information related to a position of "***the search object***" 400 and to calculate position information of "***the search object***" 400 that would be with respect to the "***request apparatus***" 100, based upon the information related to position of "***the***

search object" 400 received from the "***measuring apparatus***" 300 and to transmit the calculated position information of "***the search object***" 400 to the "***request apparatus***" 100.

According to the foregoing, the independent claims are amended, using claim 1 as an example, to clarify "wherein ***the service device is placed at a predetermined fixed location***," thereby providing a base station 200 function to manage calculating position of "***a search object***" 400 by calculating a position of the search object 400 based upon information received from cooperating measuring apparatuses and transmitting the calculated position of the search object to a requesting apparatus that requested, for example, via communicating with a cooperating measuring apparatus, position of the search object 400. For example, the present application FIGS. 1, 8; page 12, lines 13-24; page 15, lines 5-11; page 16, lines 9-17; and page 19, line 10 to page 22, line 12, support the claim amendments and the claimed present invention.

Therefore, Martorana cannot anticipate the claimed present invention, because Martorana fails to disclose or suggest, either expressly or inherently, each and every element of the claimed present invention as recited in the independent claims. For example, in contrast to Martorana, claim 1 provides:

> 1. (CURRENTLY AMENDED) A measuring apparatus cooperating with a service device ~~for providing~~ that provides position information to a request apparatus requesting from the measuring apparatus a position of a search object, comprising:
>
> a unit ***accepting from the request apparatus a search request*** for searching the position of the search object;
>
> a unit calculating a distance between the measuring apparatus and the search object;
>
> a unit acquiring present position information of the measuring apparatus; and
>
> a unit ***transmitting the present position information and the distance*** ~~***information***~~***information, to the service device,***
>
> wherein the ***service device is placed at a predetermined fixed location***.

Martorana's master mobile radio 12 and reference mobile radios 14, 16, 18 and 20 fail to disclose or suggest a "***measuring apparatus***" that is "***accepting from the request apparatus a search request for searching the position of the search object***," "***calculating a distance between the measuring apparatus and the search object***;" "***acquiring present position information of the measuring apparatus***," and "***transmitting the present position***

information and the distance ~~information~~information, to the service device, wherein the service device is placed at a predetermined fixed location." In other words, for example, the Martorana's master radio 12 does not accept "***a search request***" to ***search for a position of "a search object***," but Martorana's master radio 12 determines its own position with respect to the reference radios 14, 16, 18, and 20.

Further, in contrast to Martorana, the claimed present invention provides:

> 4. (CURRENTLY AMENDED) A service device for providing position information of a search object to a request apparatus requesting the position information of ~~a~~the search object, comprising:
>
> a unit ***receiving, from a measuring apparatus for measuring a position of the search object***, present position information of the measuring apparatus and information about a distance between the measuring apparatus making the measurement and the search object, and ***calculating the position information of the search object***, based on the present position information and the information about the distance to the search object received from the measuring apparatus; and
>
> a unit ***transmitting to the request apparatus the position information of the search object that has been calculated*** based on the present position information and the information about the distance to the search object ***received from the measuring apparatus***,
>
> wherein ***the service device is placed at a predetermined fixed location***.

In other words, for example, Martorana's mobile radios differ from the claimed present invention's "***service device***," because Martorana's mobile radios do not provide "***calculating the position information of the search object***, based on the present position information and the information about the distance to the search object ***received from the measuring apparatus***," because the master radio 12 determines its own position, but not the position of another search object.

Further, in contrast to Martorana, the claimed present invention provides:

> 5. (CURRENTLY AMENDED) A request apparatus provided with a request for position information of a search object through a system including a service device for providing the position information of the search object and measuring apparatuses for reporting distances to the search object to the service device, comprising:
>
> a unit ***transmitting a search request for the position information of the search object to the measuring apparatuses*** existing in ~~the~~a periphery of the request apparatus~~self-apparatus~~; and
>
> a unit ***receiving via the service device the position information of the search object*** ~~***that is based on the reports given***~***calculated based upon the reporting*** ***from the measuring apparatuses,*** ***wherein the service device is placed at a predetermined fixed location***.

In other words, for example, Martorana's master radio 12 fails to transmit "***a search request***" to ***search for "a search object***," by "***transmitting a search request for the position information of the search object to the measuring apparatuses*** existing in ~~the~~a periphery of the request apparatus~~self-apparatus~~; and ***receiving via the service device the position information of the search object*** ~~***that is based on the reports given***~***calculated based upon the reporting*** ***from the measuring apparatuses,*** ***wherein the service device is placed at a predetermined fixed location***." Martorana's master radio 12 does not receive "***position information of the search object***" from "the service device," because Martorana's master radio 12 determines its own position and does not determine position information of another search object.

A benefit of the claimed present invention is that a request apparatus without a function to obtain the present position information, can obtain position information about a desired object.

In view of the claim amendment and remarks, withdrawal of the rejection of pending clams and allowance of pending claims is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,
STAAS & HALSEY LLP

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By: _____
Mehdi D. Sheikerz
Registration No. 41,307

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501